Lighting Request for Proposal (RFP) for

Barber Park

Softball Fields Lighting Project
Cairo, GA
November 10, 2014

Sealed Proposals Are Due
12:00 PM
December 5, 2014
At
Grady County Board of Commissioners
250 N Broad St
Cairo, GA 39828

Attn: Barber Park Softball Fields Lighting Project

(Sealed Proposals to be opened
and read aloud at 12:01 PM on 12/05/2014)

EXTERIOR RECREATIONAL LIGHTING

PART 1 – GENERAL

1.1 SUMMARY

A. Grady County seeks the most cost-effective exterior recreational lights for five softball fields at Barber Park.

B. Light standards shall be a modular design.

C. Work shall conform to contract documents as well as state and local codes. Manufacturer will supply engineering plans.

D. The purpose of this proposal is to allow manufacturers to propose the performance and design standards for Barber Park exterior athletic lighting. The manufacturer shall supply lighting equipment and the owner, Grady County, shall install the equipment.

E. The sports lighting will be for the following venues:
   1. Softball 1
   2. Softball 2
   3. Softball 3
   4. Softball 4
   5. Softball 5

F. The primary goals of this sports lighting project are:
   1. Appropriate light levels for recreational fields. An option for appropriate light levels for chartered little league fields is required as well.
   2. Life-cycle Cost: In order to reduce the operating budget, the preferred lighting system shall be energy efficient and cost effective to operate.
   3. Control and Monitoring: To allow for optimized use of labor resources and avoid unneeded operation of the facility, customer prefers a remote on/off control system for the lighting system.
   4. Environmental Light Control: One of the goals of this project is to minimize spill light to adjoining properties and glare to the players and spectators.
   5. Manufacturer is strongly encouraged to visit Barber Park in Cairo, GA. Contact Carlos Tobar at 229-726-7278 or Becky Bracewell at 229-224-2640 to schedule an appointment. Site visits on weekends are permissible. Staff will be available to provide tour.

1.2 LIGHTING PERFORMANCE

A. **Performance Requirements:** Playing surfaces shall be lit to an average target illumination level and uniformity. It is estimated that the existing lights are used 300 hours annually.

B. **Mounting Heights**: To ensure proper aiming angles for reduced glare and to provide better playability, minimum mounting heights shall be 60'. Higher mounting heights may be required based on photometric report and ability to ensure the top of the field angle is a minimum of 10 degrees below horizontal.

C. **Lighting Methodology:** Provide lighting specifications separately for recreational fields and chartered little league fields. Grady County will choose the lighting methodology that fits its budget. Grady County may increase capacity to accommodate its selection.

1.3 LIFE CYCLE COSTS

Manufacturer shall submit 10-year life cycle cost calculation. Include lamp replacement schedule.

PART 2 – PRODUCT

2.1 SPORTS LIGHTING SYSTEM CONSTRUCTION

A. Manufacturing Requirements: All components shall be designed and manufactured as a system. All luminaires, wire harnesses, ballast and other enclosures shall be factory assembled, aimed, wired and tested.

B. Durability: All exposed components shall be constructed of corrosion resistant material and/or coated to help prevent corrosion. All wiring shall be enclosed within the crossarms, pole, or electrical components enclosure.

C. System Description: Lighting system shall consist of the following:

1. Galvanized steel poles and crossarm assembly or concrete poles with the minimum psi required and installed with concrete backfill.

2. Non-approved pole technology:

   a. Square static cast concrete poles will not be accepted.

   b. Direct bury steel poles which utilize the extended portion of the steel shaft for their foundation will not be accepted due to potential for internal and external corrosive reaction to the soils and long term performance concerns.

3. Pre-stressed concrete base embedded in concrete backfill allowed to cure for 12-24 hours before pole stress is applied. Alternate may be an anchor bolt foundation designed such that the steel pole and any exposed steel portion of the foundation is located a minimum of 18 inches above final grade. The concrete for anchor bolt foundations shall be allowed to cure for a minimum of 28 days before the pole stress is applied unless shorter cure time approved by structural engineer of record.

4. All luminaires shall be constructed with a die-cast aluminum housing or external hail shroud to protect the luminaire reflector system.

5. Wire harness complete with an abrasion protection sleeve, strain relief and plug-in connections for fast, trouble-free installation.

6. All luminaires, visors, and crossarm assemblies shall withstand 90 mph winds and maintain luminaire aiming alignment.

D. Control cabinet to provide remote on-off control and monitoring of the lighting system. Cabinet shall be constructed of aluminum.

E. Lightning Protection: Manufacturer shall describe lightning grounding system.

F. Safety: All system components shall be UL listed for the appropriate application.

2.2 ELECTRICAL

A. Owner will supply required electric power. Describe electric power requirements in proposal.

B. Revised Electrical Distribution: Manufacturer shall provide, at their cost, revised electrical distribution plans to include changes to service entrance, panel, and wire sizing if using Lighting Method 2.

2.3 STRUCTURAL PARAMETERS

A. Wind Loads: Wind loads shall be designed to a wind speed of 90 mph and any other applicable building codes.
B. Pole Structural Design: The stress analysis and safety factor of the poles shall conform to current building codes
C. Foundation Design: The foundation design shall be based on soils.

2.4 CONTROL SYSTEM

A. Remote Lighting Control System: Grady County desires a system that will allow owner and users with a security code to schedule on/off system operation via a web site, phone, fax or email.

B. Remote Monitoring and Communication System: Describe and cost any remote monitoring capabilities.

C. Management Tools: Describe any management tools available to Grady County such as the ability to track actual hours of usage for the field lighting system. that is readily accessible to the owner.

PART 3 – EXECUTION

3.1 SOIL QUALITY CONTROL

A. It shall be Manufacturer's responsibility to notify the Owner if soil conditions exist other than those on which the foundation design is based.

3.2 DELIVERY TIMING

Delivery Timing Equipment On-Site: The equipment must be on-site 4-6 weeks from receipt of approved submittals and receipt of complete order information.

3.3 FIELD QUALITY CONTROL

A. Illumination Measurements: Upon substantial completion of the project and in the presence of the Owner's Representative and Manufacturer's Representative, illumination measurements shall be taken and verified.

B. Field Light Level Accountability
   1. Manufacturer/Contractor shall provide to the owner as part of the bid package a new light meter that will be utilized both for initial light level testing and annual testing of the system. Initial light test certification at project completion shall be conducted by a third party State of GA Electrical Engineer (P.E.).
   2. The contractor/manufacturer will be held responsible for any and all changes needed to bring these fields back to compliance for light levels and uniformities. Contractor/Manufacturer will be held responsible for any damage to the fields during these repairs.

C. Correcting Non-Conformance: If, in the opinion of the Owner or his appointed Representative, the actual performance levels including illumination levels, uniformity ratios, and maximum energy consumption do not conform to proposed performance specifications and submitted information, the manufacturer shall be liable to any or all of the following:
   1. Manufacturer shall at his expense provide and install any necessary additional luminaires to meet the minimum lighting standards. The Manufacturer shall also either replace the existing poles to meet the new wind load (EPA) requirements or verify by certification by a licensed structural engineer that the existing poles will withstand the additional wind load.

2. Manufacturer shall remove the entire unacceptable lighting system and install a new lighting system to meet the specifications

3.1 **WARRANTY** Each manufacturer shall supply a signed warranty covering the entire system. Provide warranty information in proposal.

PART 4 – DESIGN APPROVAL

4.0 PRE-BID SUBMITTAL REQUIREMENTS

A. Design Approval: The owner / engineer will review submittals from all the manufacturers to ensure compliance with existing codes.

B. Proposers are reminded that they must supply engineered drawings.

REQUIRED SUBMITTAL INFORMATION FOR ALL MANUFACTURERS

Complete the Yes/No column to indicate compliance (Y) or noncompliance (N) for each item. ***Submit checklist below with submittal.***

Yes/ No	Tab	Item	Description
	A	Letter/ Checklist	Listing of all information being submitted must be included on the table of contents. List the name of the manufacturer's local representative and his/her phone number. Signed submittal checklist to be included.
	B	Equipment Layout	Drawing(s) showing field layouts with pole locations
	C	On Field Lighting Design	Lighting design drawing(s) showing: a. Field Name, date, file number, prepared by b. Outline of field(s) being lighted, as well as pole locations referenced to the center of the field (x & y), Illuminance levels at grid spacing specified c. Pole height, number of fixtures per pole, as well as luminaire information including wattage, lumens and optics d. Height of light test meter above field surface. e. Summary table showing the number and spacing of grid points; average, minimum and maximum illuminance levels in foot candles (fc); uniformity including maximum to minimum ratio, coefficient of variance (CV), coefficient of utilization (CU) uniformity gradient; number of luminaries, total kilowatts, average tilt factor; light loss factor.
	D	Off Field Lighting Design	Lighting design drawing showing initial spill light levels along the boundary line (defined on bid drawings) in footcandles. Light levels shall be taken at 30-foot intervals along the boundary line. Readings shall be taken with the meter orientation at both horizontal and aimed towards the most intense bank of lights.
	E	Performance Guarantee	Provide performance guarantee including a written commitment to undertake all corrections required to meet the performance proposed at no expense to the owner.
	F	Structural Calculations	Pole structural calculations and foundation design showing foundation shape, depth backfill requirements, rebar and anchor bolts (if required). Pole base reaction forces shall be shown on the foundation drawing along with soil bearing pressures. Design must be stamped by a structural engineer in the state of GA, if required by owner.
	G	Control & Communication Monitoring System	Manufacturer of the control and monitoring system shall provide written definition and schematics for automated control system to include monitoring. They will also provide three (3) references currently using proposed system in the USA.
	H	Electrical Distribution Plans	Manufacturer must include an electrical distribution plan including changes to service entrance, panels and wire sizing, signed by a licensed Electrical Engineer.
	I	Warranty	Provide written warranty information including all terms and conditions. Provide three (3) references of customers currently under specified warranty in the USA.
	J	Independent Testing Report	Independent Engineer conducting the report must have no affiliation with the manufacturer and report must be based on actual testing data. Testing must be done on the system as a whole, not on individual components.
	K	Project References	Manufacturer to provide a list of 3 projects where the technology and specific fixture proposed for this project has been installed in the USA. Reference list will include project name, project city, installation date, and if requested, contact name and contact phone number.
	L	Product Information	Complete bill of material and current brochures/cut sheets for all product being provided.
	M	Cost Schedule	Manufacturer shall supply a cost schedule for engineered plans, equipment, delivery, inspections, testing and Luminaire energy consumption (# of luminaires x kW demand per luminaire x .08 kWh rate x 300 annual usage hours x 10 years).

The information supplied herein shall be used for the purpose of complying with the specifications for Barber Park. By signing below I agree that all requirements of the specifications have been met and that the manufacturer will be responsible for any future costs incurred to bring their equipment into compliance for all items not meeting specifications and not listed in the Non-Compliance section.

Manufacturer: _____ **Signature:** _____

Contact Name: _____ **Date:** _____/_____/_____

Contractor: _____ **Signature:** _____